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金門群島新紀錄種中緣角微餔糞蜣和臺灣產微餔糞蜣屬回顧（鞘翅目：金龜子科：蜣螂亞科）

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摘要: 本研究首度報導中緣角微餔糞蜣 *Microcopris reflexus* (Fabricius, 1787) 在金門群島的分布紀錄，此外，本文亦回顧臺灣產微餔糞蜣屬 *Microcopris* 並提供成蟲與雄性生殖器照片和種級檢索表。

關鍵詞: 糞金龜、微餔糞蜣屬、新紀錄、檢索表、金門群島、臺灣物種相

前言

微餔糞蜣屬 *Microcopris* 由 Balthasar 於 1958 年建立 (Balthasar, 1958)，起初被置於餔糞蜣屬 *Copris* 下的一亞屬，Ferreira (1961) 基於翅鞘、頭部與前胸背板等差異將其提升至屬級階元。本屬隸屬於金龜子科 Scarabaeidae，成蟲體長介於 7–13 mm，頭部大多具有小突起，多數物種前胸背板形態簡單，前緣角不明顯截平；全球已知 10 種，主要分布於古北區和東方區 (Hanboonsong et al., 2003; Ziani & Bezděk, 2016)。

臺灣地區所產的餔糞蜣屬物種除了圓頭楯微餔糞蜣 *Microcopris propinquus* (Felsche, 1910) 外，中緣角微餔糞蜣 *M. reflexus* (Fabricius, 1787) 過去也曾有文章指出本種分布於蘭嶼和臺灣本島 (Miwa, 1930; Cheung et al. 2018)，但缺乏任何存證標本資訊及存放地點，且在作者檢視標本期間均未發現來自蘭嶼和臺灣本島的標本。2018 年 4 月，作者檢視採集自金門群島的標本後發現 4 隻未知的本屬糞金龜，並於同年 7 月分別在金門及烈嶼再次採得大量的該種標本，經過文獻及標本比對確認為中緣角微餔糞蜣，為金門群島食糞群金龜物種相的新紀錄種，同時也重新證實本種於臺灣地區的分布紀錄，報導如下。此外，本研究亦提供成蟲和雄性生殖器照片以及臺灣地區產本屬的種級檢索表。

材料與方法

本研究所檢查之標本分別存放於：國立自然科學博物館 (NMNS: National Museum of Natural Science, Taichung, Taiwan)；國立中興大學昆蟲學系 (NCHU: Department of Entomology, National Chung Hsing University, Taichung, Taiwan) 以及作者私人蒐藏 (BHPC: B.-H. Ho’s private collection, Taipei, Taiwan)，物種鑑定基於原始描述文獻、定名標本檢查與 Hanboonsong et al. (2003)。標本照片均使用 OLYMPUS O-MD EM1 數位相機搭配 OLYMPUS M. ZUIKO DIGITAL ED 60mm F2.8 微距鏡頭拍攝，並使用 Helicon Focus 6 影像處理軟體疊圖。長度單位以毫米 (mm) 表示，標本個體以 ex. 表示，不同標籤使用雙斜線 // 分隔表示。

結果

Microcopris propinquus (Felsche, 1910) 圓頭楯微餔糞蜣

(圖一 A–D)

Copris propinquus Felsche, 1910: 347.
Copris minutissimus Kryzhanovskij & Medvedev, 1966: 392.
Microcopris propinquus: Balthasar, 1963: 377.

標本檢查：2ex. TAIWAN: Yilan Co., Fushan Botanical Garden (福山植物園), Yuanshan Township, 7.V.2018, F.-S. Hu leg. (BHPC); 13ex. TAIWAN: Pingtung Co., Kenting Park (墾丁公園), Hengchun Township, monkey dung, 24.XII.2017, B.-H. Ho leg. (BHPC); 26ex. TAIWAN: Pingtung Co., Kenting Park, 23-26.III.2006, K. Masumoto, J.-F. Tsai & T.-C. Wang leg. (NCHU); 3ex. 沙溪林道, 王泰權 採集, 2006.07.01// NCHU 0011-0382// *Copris propinquus* Felsche, 1910 det. K. Masumoto, 2003; 0011-0383; 0011-0384 (NCHU); 1ex. TAIWAN: Pingtung Co., Checheng Village (車城鄉大梅) Damei, 17.VI.2007, T.-C. Wang leg. (NCHU); 5ex. TAIWAN: Pingtung Co., Kenting Park, 4-6.IX.2004, J.-F. Tsai & T.-C. Wang leg. (NCHU); 71ex. TAIWAN: Hualien, Walami Trail, alt. 1050-1250m, 6-7.VI.2016, F.S. Huang & M. Kiuchi leg. (NMNS); 10ex. TAIWAN: Pingtung, Mt. Dahanshan, 4-6.IV.2015, K. Masumoto et al. leg.// Coll. Masumoto 2015 (NMNS).

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分布：臺灣、香港、中國大陸、中南半島 (Chen, 2002; Cheung et al., 2018; Felsche, 1910; Hanboonsong et al. 2003; Kabakov & Napolov, 1999; Kabakov & Shokhin, 2014; Král & Bezděk, 2016)。

Microcopris reflexus **(Fabricius, 1787) 中緣角微餔糞蜣**

(圖一 E–H)

Scarabaeus reflexus Fabricius, 1787: 16.
Scarabaeus oryctes Herbst, 1789: 215.
Copris reflexus: Gillet, 1911: 77.
Microcopris reflexus: Balthasar, 1958: 474.

標本檢查：4ex. TAIWAN: Kinmen Co., Xiecuo (謝厝), Jincheng Township, cow dung, 11.IV.2018, B.-H. Ho leg. (BHPC); 64ex. TAIWAN: Kinmen Co., Xiecuo (謝厝), Jincheng Township, cow dung, 2.VII.2018, B.-H. Ho & Y. Szeto leg. (BHPC, NMNS); 4ex. TAIWAN: Kinmen Co., Lieyu playground (烈嶼運動場), Lieyu Island, cow dung, 2.VII.2018, B.-H. Ho leg. (BHPC).

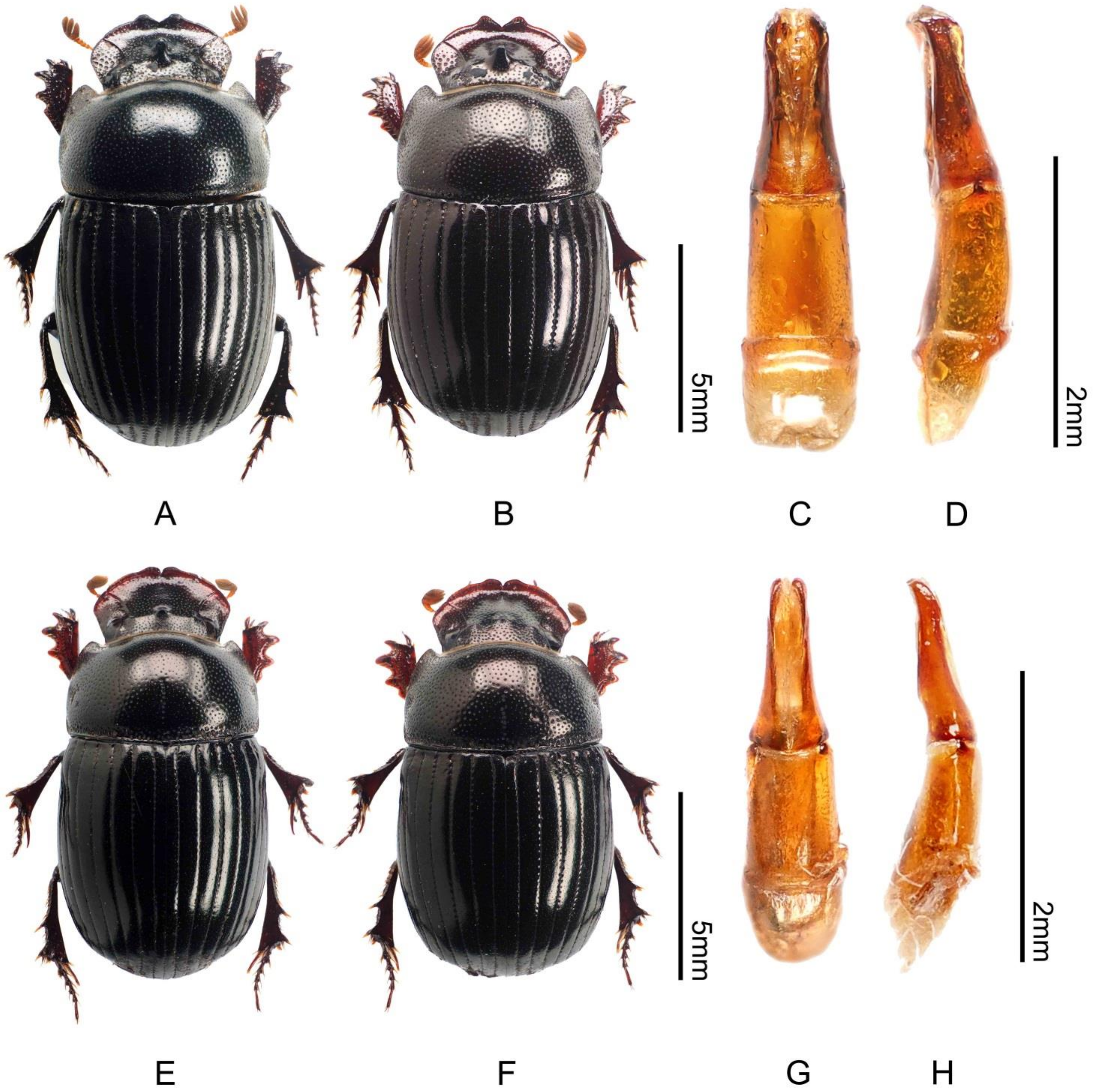
分布：金門（新紀錄）、烈嶼（新紀錄）、香港、中國大陸、中南半島、馬來半島、巽他群島 (Chen, 2002; Cheung et al., 2018; Fabricius, 1787; Hanboonsong et al. 2003; Kabakov & Napolov, 1999; Kabakov & Shokhin, 2014; Král & Bezděk, 2016)。

短註：Miwa (1930) 記錄本種分布於蘭嶼，而 Cheung et al. (2018) 則記錄本種分布於臺灣本島，然而缺乏存證標本存放資訊，且根據 Chen et al. (2002) 以及作者親自檢查館藏標本時均未發現來自上述任何地點的標本，因此本種在蘭嶼和臺灣本島的分布紀錄仍有待查證。

臺灣產微餔糞蜣屬種級檢索表
A Key to Species of *Microcopris* from Taiwan

1. 身體帶金屬光澤，頭楯緣邊明顯狹窄，中央處深切，兩側具有圓鈍狀的小齒，頭部中央不具小角突，體長 7–11 mm。臺灣地區分布：金門本島、烈嶼。..中緣角微餔糞蜣 *Microcopris reflexus*

   身體帶金屬光澤，頭楯前緣淺凹且具有兩個尖銳的小齒，頭部中央有一個小角突，體長 7–11 mm。臺灣地區分布：臺灣本島。..圓頭楯微餔糞蜣 *Microcopris propinquus*



圖一、臺灣產微餔糞蜣屬 (*Microcopris* spp.)：A–D. *Microcopris propinquus* (Felsche, 1910) 圓頭楯微餔糞蜣，A–B. 背面照，A. 雄性，B. 雌性，C–D. 雄性生殖器，C. 背面，D. 側面；E–H. *Microcopris reflexus* (Fabricius, 1787) 中緣角微餔糞蜣，E–F. 背面照，E. 雄性，F. 雌性，G–H. 雄性生殖器，G. 背面，H. 側面。

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A New Record of *Microcopris reflexus* (Fabricius, 1787) in Kinmen Islands, with a Review of *Microcopris* from Taiwan (Coleoptera: Scarabaeidae: Scarabaeinae)

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Abstract. This study firstly reports the occurrence of *Microcopris reflexus* (Fabricius, 1787) in Kinmen Islands. Additionally, the article also reviews of the genus *Microcopris* Balthasar, 1958 in Taiwan, with the photographs of habitus, and male genitalia, and the key to species of *Microcopris*.

Key words: Dung beetles, *Microcopris*, new record, key, Kinmen Islands, fauna of Taiwan

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New Records of Two Species of the Genus *Neurogenia* Roman, 1910 (Hymenoptera: Ichneumonidae: Ctenopelmatinae: Perilissini) from Taiwan

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Abstract: Two species of the genus *Neurogenia* Roman, 1910 (Hymenoptera: Ichneumonidae: Ctenopelmatinae: Perilissini), *N. fujianensis* He, 1985 and *N. shennongjiaensis* He, 1985, are recorded from Taiwan for the first time. A total of four *Neurogenia* species are recognized in Taiwan: *N. cubitalis* (Uchida, 1932), *N. fujianensis*, *N. shennongjiaensis* and *N. tuberculata* He, 1985.

Key words: Fauna, new records, Oriental region, parasitoid wasps, Taiwan

Introduction

Neurogenia Roman, 1910 is belonging to the tribe Perilissini Thomson, 1883 (Hymenoptera: Ichneumonidae: Ctenopelmatinae) and comprises 15 extant species that are distributed in the Afrotropical, Oriental and Palaearctic regions (Yu et al., 2016). The described species of the genus are usually very easily distinguished from the other Ichneumonidae by their extremely specialized fore wing veins (i.e., fore wing vein M+Cu with a spur or tubercle and Rs+M sometimes decurved and thickened) (Figs 1D, 2D). Little is known about the bionomics of the genus, except for *N. shennongjiaensis* He, 1985 that has been collected at a light (He, 1985).

Neurogenia cubitalis (Uchida, 1932) and *N. tuberculata* He, 1985 have been recorded in Taiwan previously (Uchida, 1932; Reshchikov et al., 2014); however, the Taiwanese species of *Neurogenia* have not been comprehensively studied for a long time (e.g., Uchida, 1932; Chiu et al., 1984). Hence, the author has examined the specimens of *Neurogenia* from Taiwan and recognized four Taiwanese species including two newly recorded species. In the present paper, the author reports two new species records of *Neurogenia* from Taiwan.

Materials and methods

The following abbreviations are used in this paper.

DEI	Deutsches Entomologisches Institute, Müncheberg, Germany
TARI	Taiwan Agricultural Research Institute, Council of Agriculture, Executive Yuan, Taichung, Taiwan
ZUC	Zhejiang University (= Zhejiang Agricultural University), Zhejiang, China

Sixteen specimens of *Neurogenia* from Taiwan were examined. All of them are deposited at TARI.

A stereoscopic microscope (SMZ1500, Nikon, Tokyo, Japan) was used for morphological observation. A digital microscope (VHX-600, Keyence, Osaka, Japan) was used for taking the photographs, and the photographs were stacked using the software Zerene Stacker. All figures were edited by Adobe Photoshop© Creative Cloud.

Morphological terms follow Townes (1970) but terms for wing morphology follow Shimizu and Lima (2018).

The label data for specimens examined followed the original spellings written in labels. Slashes (/) were used for separating the different lines within a same label and double slashes (//) separate different labels.

Results and discussion

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The following four species of *Neurogenia* are recognized in Taiwan: *N. cubitalis* (Uchida, 1932), *N. fujianensis* He, 1985 (Fig. 1), *N. shennongjiaensis* He, 1985 (Fig. 2) and *N. tuberculata* He, 1985. Among them, *N. fujianensis* and *N. shennongjiaensis* are recorded from Taiwan for the first time.

Among the four Taiwanese species of *Neurogenia*, three species expect for *N. cubitalis* have been also recorded in the mainland of China (He, 1985; Sheng et al., 2013): the *Neurogenia* fauna in Taiwan should be similar to the mainland of China.

Subfamily Ctenopelmatinae Förster, 1869

Tribe Perilissini Thomson, 1883

Genus *Neurogenia* Roman, 1910

Neurogenia Roman, 1910: 179. Type species: *Prionopoda testacea* Szépligeti, 1908. Original designation.
Silavoga Cameron, 1911: 190. Type species: *Silavoga longicornis* Cameron, 1911. Synonymized by Townes (1970: 100).
Perilissoides Uchida, 1932: 213. Type species: *Perilissoides cubitalis* Uchida, 1932. Synonymized by Townes (1970: 101).
Incurvarion Kasparyan, 2008: 85. Type species: *Incurvarion gorochovi* Kasparyan, 2008. Synonymized by Reshchikov et al. (2014: 128).

Diagnosis. The described species of *Neurogenia* can be easily distinguished from other ichneumonids by the extremely specialized fore wing veins (i.e., fore wing vein M+Cu with a spur or tubercle and Rs+M sometimes decurved and thickened) (Figs 1D, 2D). According to Wharton (2018), fore wing vein M+Cu of some Afrotropical undescribed species does not bear a spur/ tubercle and nor is vein Rs+M decurved and thickened. Hence, some undescribed species are not readily distinguishable from the genus *Lathrolestes* Förster, 1869 based on only the shape of the fore wing veins, and future studies are required to determine the precise relationship of *Neurogenia* to *Lathrolestes*.

Distribution. Afrotropical, Oriental and Palaearctic* regions (Reshchikov et al., 2014; Yu et al., 2016). *Only from the far eastern part of the Palaearctic region.

Bionomics. *Neurogenia shennongjiaensis* was collected at lights (He, 1985) and some specimens of the genus were collected in Malaise traps (cf. specimens examined of *N. cubitalis* and *N. shennongjiaensis* and some specimens in Reshchikov et al., (2014)). The genus is possibly a koinobiont endoparasitoid of sawfly larvae, like many other Ctenopelmatinae (Reshchikov et al., 2014).

Remarks. Summary information on the genus and all described species is available electronically (Wharton, 2018).

Incurvarion is a monotypic genus and comprises only the type species (*I. gorochovi*). The type species of this genus has been already transferred to *Neurogenia* by Reshchikov et al. (2014). Reshchikov et al. (2014) had not examined the type specimen of the type species, but the description and figures of it in the original description demonstrate that the type has typical morphological characters of *Neurogenia* and it undoubtedly belongs to *Neurogenia*. Hence, the author agrees with Reshchikov et al. (2014) on the taxonomic treatment of the type species of *Incurvarion*. However, Reshchikov et al. (2014) did not including *Incurvarion* in their synonym list of *Neurogenia*.

For all Asiatic described species of *Neurogenia*, a key has been provided by Reshchikov et al. (2014).

Neurogenia cubitalis (Uchida, 1932)

Perilissoides cubitalis Uchida, 1932: 213. Holotype: male, Taiwan (DEI). [not examined, but see Figs 8–10 in Reshchikov et al. (2014) for photos of the holotype].

Specimens examined. 3♀♀, "C. TAIWAN: Wanfeng / Hill, Taichung Hsien / IV. 1984 / K. S. Lin & K. C. Chou / Malaise trap // [Ctenopelmatinae:Perilissini] / *Neurogenia cubitalis* / He, 1985 / det. So SHIMIZU, 2018" (TARI). 1♂, "CHINA: C. Taiwan / Wanfeng, Taichung / Hsien 18. IV / 1980 KSLin // [Ctenopelmatinae:Perilissini] / *Neurogenia cubitalis* / He, 1985 / det. So SHIMIZU, 2018" (TARI). 1♀, "TAIWAN: Taichung / Wufeng, Wanfeng / 18–22. V. 1979 / K. C. Chou // Malaise trap //

[Ctenopelmatinae:Perilissini] / *Neurogenia cubitalis* / He, 1985 / det. So SHIMIZU, 2018” (TARI). 1♀, “TAIWAN: Taichung / Wufeng / 26. X – 5. XI 1979 / K. C. Chou // Malaise trap // [Ctenopelmatinae:Perilissini] / *Neurogenia cubitalis* / He, 1985 / det. So SHIMIZU, 2018” (TARI). 1♀, “CHINA: C. Taiwan / Sunmoon Lake / 15–21. IX. 1970 / Malaise trap // Neurogenia / Tow. 198 // [Ctenopelmatinae:Perilissini] / *Neurogenia cubitalis* / He, 1985 / det. So SHIMIZU, 2018” (TARI).

Distribution. India (Jonathan, 1975) and Taiwan (Uchida, 1932).

Bionomics. Almost unknown. Some specimens were collected by Malaise traps. The Taiwanese specimens were collected in spring and autumn.

Neurogenia fujianensis He, 1985

(Fig. 1)

Neurogenia fujianensis He, 1985: 318. Holotype: female, China (ZUC). [not examined, but see Wharton (2018) for photos of the holotype].

Specimens examined. 1♀, “Suigen / Suogun / 12 VII 1939 / J. Sonan // [Ctenopelmatinae:Perilissini] / *Neurogenia fujianensis* / He, 1985 / det. So SHIMIZU, 2018” (TARI). 1♀, “Kahodai / 15 V 1933 / Col. J. Sonan // [Ctenopelmatinae:Perilissini] / *Neurogenia fujianensis* / He, 1985 / det. So SHIMIZU, 2018” (TARI).

Distribution. China (He, 1985; Sheng et al., 2013) and Taiwan*. *Newly recorded from Taiwan.

Bionomics. Unknown. The Taiwanese specimens were collected in late spring and summer.

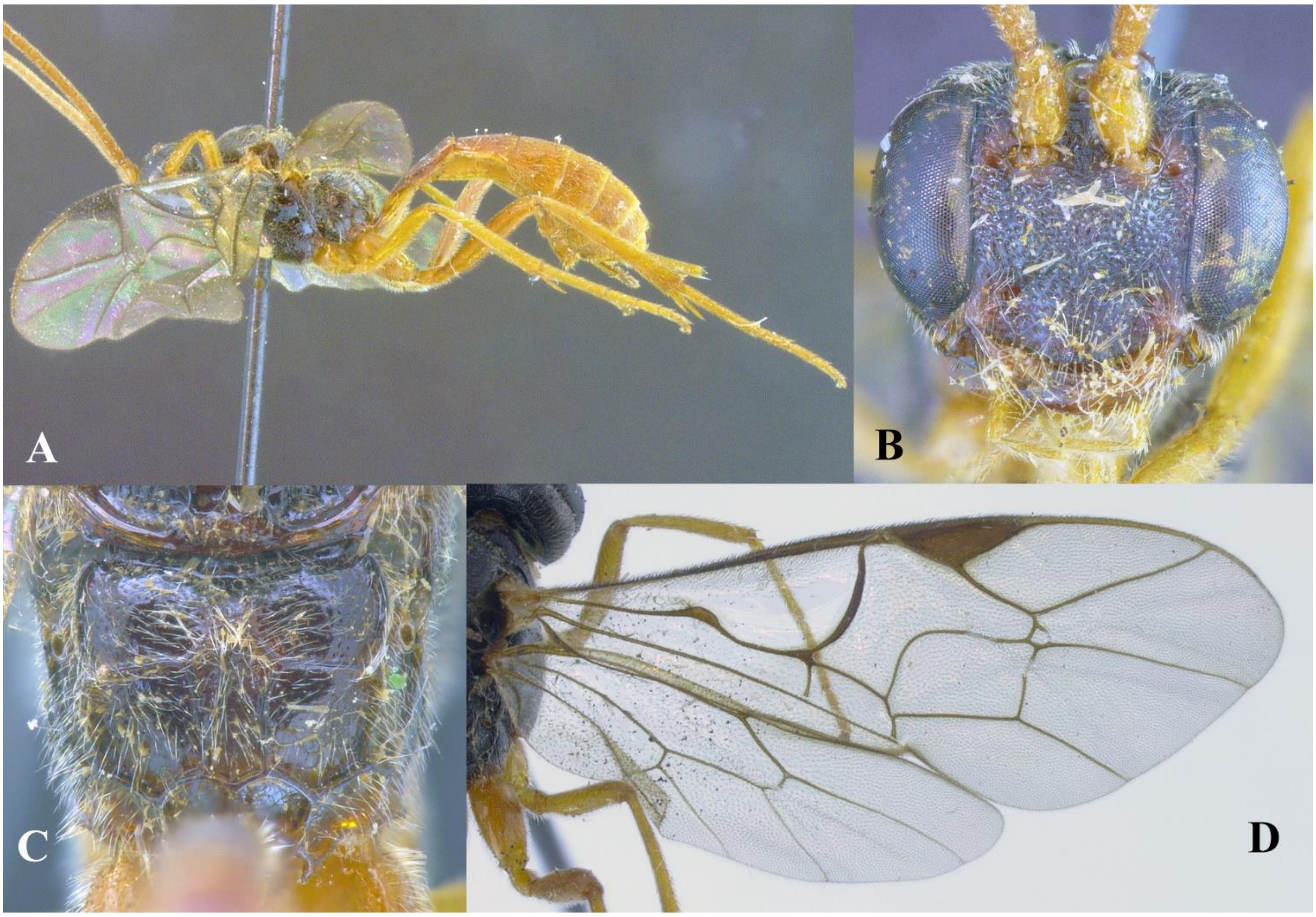

Figure 1. *Neurogenia fujianensis* He, 1985 from Taiwan. A - habitus, in lateral view; B - head, in frontal view; C - propodeum, in dorsal view; D - fore wing.

Neurogenia shennongjiaensis He, 1985

(Fig. 2)

Neurogenia shennongjiaensis He, 1985: 318. Holotype: female, China (ZUC). [not examined, but see Wharton (2018) for photos of the holotype and allotype].

Specimens examined. 1♂, “Arisan / 29 – IV – 1931 / Col. K. Fukuda // [Ctenopelmatinae:Perilissini] / *Neurogenia* / *shennongjiaensis* / He, 1985 / det. So SHIMIZU, 2018” (TARI). 1♂, “Kuandouchi / 6–12. IV. 1971 / Malaise Trap // [Ctenopelmatinae:Perilissini] / *Neurogenia* / *shennongjiaensis* / He, 1985 / det. So SHIMIZU, 2018” (TARI). 3♂♂, “Kuandouchi / 20–26. IV. 1971 / Malaise Trap // [Ctenopelmatinae:Perilissini] / *Neurogenia* / *shennongjiaensis* / He, 1985 / det. So SHIMIZU, 2018” (TARI). 1♂, “Kuandouchi / 15–21. VI. 1971 / Malaise Trap // [Ctenopelmatinae:Perilissini] / *Neurogenia* / *shennongjiaensis* / He, 1985 / det. So SHIMIZU, 2018” (TARI). 1♂, “Formosa / Karenko, –19. / VII 20– VIII 4. / T. Okuni, / J. Sonan / K. Miy., M. Yosh. // [Ctenopelmatinae:Perilissini] / *Neurogenia* / *shennongjiaensis* / He, 1985 / det. So SHIMIZU, 2018” (TARI).

Distribution. China (He, 1985) and Taiwan*. *Newly recorded from Taiwan.

Bionomics. Unknown. This species was collected at light (He, 1985). Also, five of seven specimens examined were collected by Malaise traps. The Taiwanese specimens were collected from spring to summer.

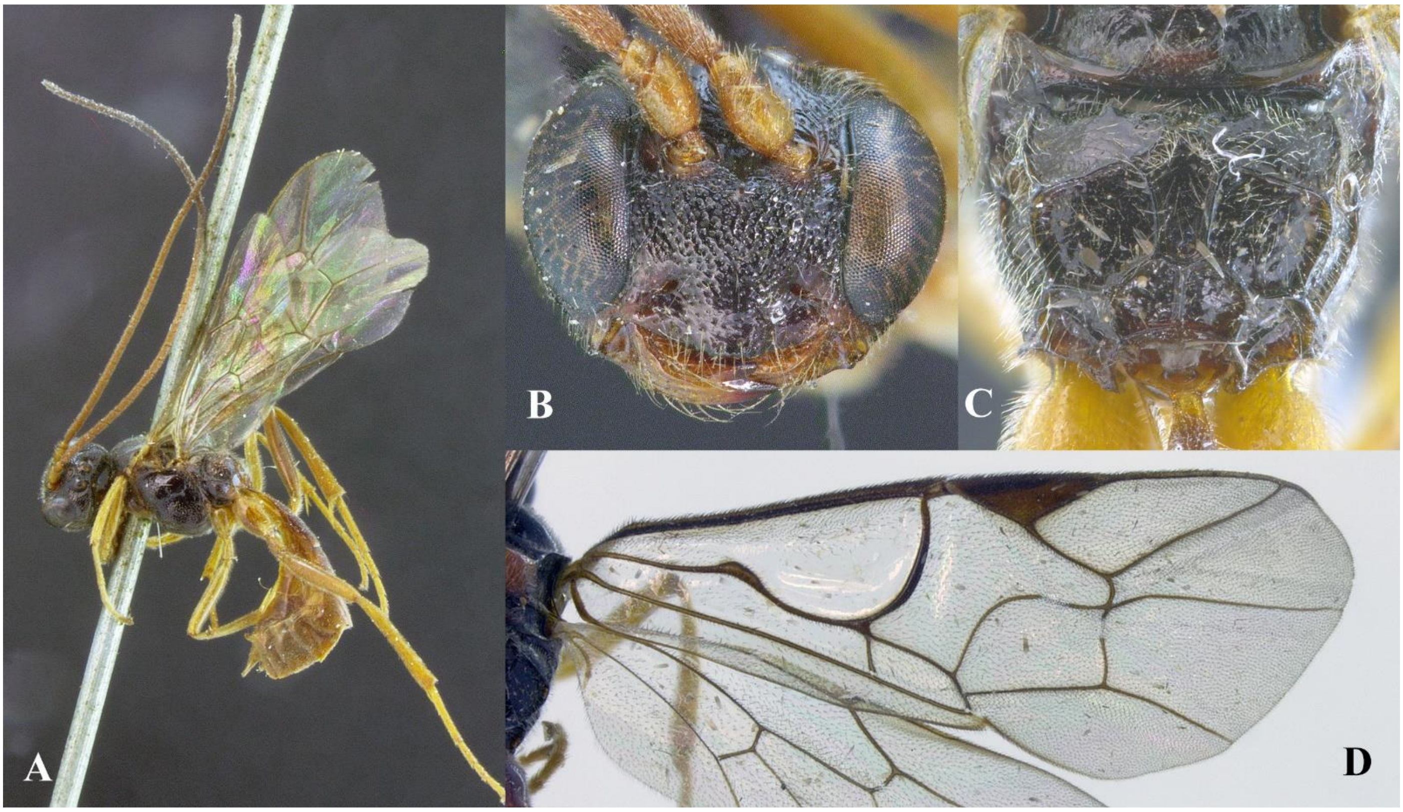

Figure 2. *Neurogenia shennongjiaensis* He, 1985 from Taiwan. A - habitus, in lateral view; B - head, in frontal view; C - propodeum, in dorsal view; D - fore wing.

Neurogenia tuberculata He, 1985

Neurogenia tuberculata He, 1985: 316. Holotype: female, China (ZUC).

Specimen examined. Holotype: ♀, Mt. Fengyangshan, Longquan (28˚ N, 119˚ 1` E), Zhejiang Prov. 1400–1600 m, 1982. VIII. 16, Yang Yao-guang, No. 826668 (ZUC).

Distribution. China (He, 1985) and Taiwan (Reshchikov et al., 2014).

Bionomics. Almost unknown. The Taiwanese specimen was collected in spring (Reshchikov et al., 2014), and the Chinese specimens were collected in summer (He, 1985).

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兩種臺灣產畸脈姬蜂屬新紀錄種 (膜翅目: 姬蜂科: 櫛足姬蜂亞科: 波姬蜂族)

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摘要:. 共計四種畸脈姬蜂屬 *Neurogenia* Roman, 1910 姬蜂被記錄於臺灣，分別為肘畸脈姬蜂 *N. cubitalis* (Uchida, 1932)、福建畸脈姬蜂 *N. fujianensis*、神農架畸脈姬蜂 *N. shennongjiaensis* 及瘤畸脈姬蜂 *N. tuberculata* He, 1985，其中福建畸脈姬蜂及神農架畸脈姬蜂為臺灣新紀錄種。

關鍵字: 動物相、新紀錄、東方區、寄生蜂、臺灣

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[研究文章 Research Article]

http://zoobank.org/urn:lsid:zoobank.org:pub:4DE30EDC-7B24-4631-B4BB-1741DC8FB2CF

臺灣新紀錄種黑斑鄰固蝽記述 (半翅目：固頭蝽科)

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摘要: 黑斑鄰固蝽 *Paraplea liturata* (Fieber, 1844) 首次於臺灣發現的分布紀錄。

關鍵詞: 固頭蝽科、鄰固蝽屬、新紀錄、臺灣、水生昆蟲

前言

鄰固蝽屬 *Paraplea* Esaki & China 1928 體型小，前胸背板及前翅具點刻，棲息於靜止或緩流水域，臺灣本屬已知有 4 種 (Aukema & Rieger, 1995)，分別為臺灣鄰固蝽 *P. formosana* (Esaki, 1915)、高額鄰固蝽 *P. frontalis* (Fieber, 1844)、毛鄰固蝽 *P. indistinguenda* (Matsumura, 1905)、日本鄰固蝽 *P. japonica* (Horvath, 1904)。黑斑鄰固蝽 *Paraplea liturata* (Fieber, 1844) 雖在東亞、東南亞、南亞、澳大利亞有分布紀錄 (Hayashi & Miyamoto, 2018)，但在此之前沒有任何臺灣的採集紀錄。

作者群於臺中市、彰化縣發現鄰固蝽的物種，經形態比對 Hayashi & Miyamoto (2018)後鑑定為黑斑鄰固蝽。

材料與方法

本研究使用網竿長 70 公分搭配網框長 45 公分之 D 形撈網採集，存證標本存放於國立自然科學博物館 (NMNS: National Museum of Natural Science, Taichung City, Taiwan)，另外部分標本為第一作者所藏 (TMC: T. Mitamura’s private collection, Fukushima, Japan)，標本以 Leica EZ4 實體顯微鏡觀察，相片以 Panasonic LUMIX DMC-FZ50 搭配 RAYNOX MACROSCOPIC LENS Model M-250 單眼相機拍攝。

結果

黑斑鄰固蝽
Paraplea liturata (Fieber, 1844)

(圖一 A, B)

Ploa liturata Fieber, 1844: 19
Plea metiadusa Distant, 1910: 337
Plea rufonotata Distant, 1914: 387
Plea fasciata Horváth, 1918: 144
Plea quinquenotata Paiva, 1918: 29
Paraplea liturata: Esaki & China, 1928: 166

標本檢查：2 ex. TAIWAN: Wufeng District, Taichung City, 1. XII. 2018, T. Mitamura leg. (TMC); 15 ex. TAIWAN: Huatan Township, Changhua County, 1. XII. 2018, H.C. Liu leg. (NMNS); 20 ex. TAIWAN: Huatan Township, Changhua County, 2. XII. 2018, T. Mitamura, K. Hirasawa & S. Yoshii leg. (TMC).

診斷特徵：可由以下方式與臺灣產的鄰固蝽屬區別：體長 1.6-1.7 mm，頭部、前胸背板為灰白色及不規則的褐色，前翅

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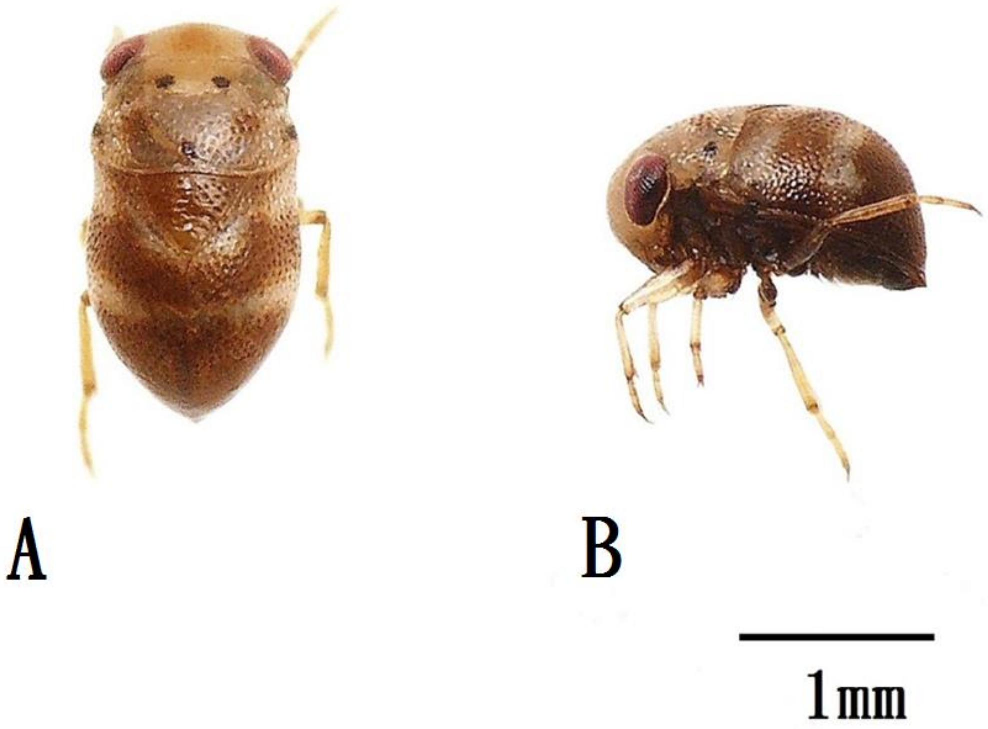
具 2 條灰白色不規則條紋，前胸背板 5 枚黑色斑點。

生物學資訊：棲息於平地地區的靜止水域。於臺中市霧峰區的棲息地水生植物主要為浮水性的大萍 *Pistia stratiotes* L.及少部分的挺水性禾本科植物 Poaceae Barnhart, 1895。於彰化縣花壇鄉的棲息地則皆為禾本科的水生植物，此處採集到大量的黑斑鄰固蝽。

分布：臺灣 (新紀錄) 、日本 (沖繩島、古宇利島、石垣島、西表島) 、菲律賓、印度、中南半島、馬來西亞、印度尼西亞 (蘇門答臘島、爪哇島、峇里島、蘇拉維西島)、澳大利亞、新喀里多尼亞 (Nieser, 2004; Hayashi & Miyamoto, 2018)。



圖一、黑斑鄰固蝽 *Paraplea liturata* (Fieber, 1844)。A. 成蟲背面觀，B. 成蟲側面觀。

圖二、黑斑鄰固蝽的棲息環境

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在此次調查中特別感謝國立自然科學博物館蔡經甫博士及楊萬琮先生提供採集的協助，另外感謝日本東海大學北野忠教授和石川縣昆蟲館的渡部晃平先生給予物種鑑定相關的協助。

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New Distributional Record of *Paraplea liturata* (Fieber, 1844) (Hemiptera: Pleidae) from Taiwan

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Abstract. This study firstly reports the occurrence of *Paraplea liturata* (Fieber, 1844) from Taiwan.

Key words: Pleidae, *Paraplea*, new record, Taiwan, aquatic insect

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